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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/730,638	12/08/2003	Kaoru Takeishi	5576-156	3023

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EXAMINER	
NGUYEN, CAM N	

ART UNIT	PAPER NUMBER
1754	

DATE MAILED: 12/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/730,638	TAKEISHI ET AL.	
	Examiner	Art Unit	
	Cam N. Nguyen	1754	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *08 December 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-8* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-8* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *originally filed* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *04/22/04, 01/07/04*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claims 1 & 3 are objected to because of the following informalities:

In line 3, "being" is suggested changed to –is--.

Appropriate correction is required.

Claim Rejections - 35 USC § 112 (Second Paragraph)

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 7 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The phrase "a largest volume in said porous structure" is unclear as to how much of the pore volume of pores having pore diameters of 80 A to 200 A. Thus, renders the claim vague and indefinite.

Claim Rejections - 35 USC § 102(b)/103

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 1-3 & 5-6 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Hansford (US Pat. 3,988,263).

Hansford discloses a catalyst comprising from 20-95 wt.% of alumina and about 5-80 wt.% of an oxide or oxides of at least one active divalent metal selected from a group consisting of iron, cobalt, nickel, copper and zinc (see col. 11, claim 1).

There is no patentable distinction seen between the claimed catalyst and that disclosed by Hansford, thus the claims are anticipated by the reference.

Product-by-process limitation on "the catalyst is made by a sol-gel method" is noted. It is considered while the catalyst of the reference is not made by the same method, the catalyst made is the same as being claimed. Thus, the process limitations in the claims have no bearing on the patentability of the claimed catalyst. See *In re Thorpe*, 227 USPQ 964 (Fed. Cir. 1985); *In re Brown*, 173 USPQ 688, 688 (CCPA 1977); *In re Fessman*, 180 USPQ 324, 326 (CCPA 1977). See also *MPEP 2113*.

Claim Rejections - 35 USC § 102(a)

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

7. Claims 3-4 & 6 are rejected under 35 U.S.C. 102(a) as being anticipated by Shikada et al., "hereinafter Shikada", (US Pat. 6,361,757 B1).

Shikada discloses a catalyst comprising copper or iron as an active component (see col. 29, claim 1). The catalyst may be carried by a catalyst carrier, such as alumina is being preferable (see col. 3, ln 8-13). In case of the copper catalyst, content is 1-50 wt.% (see col. 3, ln 14-15). The catalyst may be combined with other metals or compounds, such as in the case of copper catalyst, zinc, chromium, nickel, manganese, tin ,cerium ,lanthanum and their compounds (see col. 3, ln 23-28). The content of the above third component is 1-70 wt.% or less, in general, about 1-30 wt.% (see col. 3, ln 29-31).

There is no patentable distinction seen between the claimed catalyst and that disclosed by Shikada, thus the claims are anticipated by the reference.

Product-by-process limitation on "the catalyst is made by a sol-gel method" is noted. It is considered while the catalyst of the reference is not made by the same method, the catalyst made is the same as being claimed. Thus, the process limitations in the claims have no bearing on the patentability of the claimed catalyst. See *In re Thorpe*, 227 USPQ 964 (Fed. Cir. 1985); *In re Brown*, 173 USPQ 688, 688 (CCPA 1977); *In re Fessman*, 180 USPQ 324, 326 (CCPA 1977). See also *MPEP 2113*.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

9. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cai et al., "hereinafter Cai", (US Pat. 6,627,572 B1).

Cai discloses a process of preparing a catalyst by precipitating the copper and zinc components separately from the aluminum component in aqueous solution to produce a catalyst precursor mixture (see col. 5, ln 12-14). Some acids can also be used in the process (see col. 5, ln 33-40). See also col. 5, ln 45-49. After precipitating, the resulting precipitate is then dried and calcined and formed into appropriate shapes (see col. 6, ln 10-21).

Cai does not disclose "reducing" the catalyst precursor. It would have been *prima facie obvious* to one of ordinary skill in the art at the time the invention was made to have incorporated the reducing step into the process of Cai in order to obtain a reduced catalyst because it is known and conventional to convert metal oxide catalyst materials into metallic form catalyst materials by reducing.

Citations

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. All references are cited for related art. See PTO-892 Form prepared attached.

Conclusion

11. Claims 1-8 are pending. Claims 1-8 are rejected. No claims are allowed.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Primary Examiner Cam N Nguyen, whose telephone number is 571-272-1357. The examiner can normally be reached on M, W, R, & F, 9:00 AM - 6:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stanley Silverman, can be reached on 571-272-1358. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

CAM N. NGUYEN
PRIMARY EXAMINER

Nguyen/cnn
December 07, 2005

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